

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. William Schmidt on 10 December 2009.

The application has been amended as follows:

Claim 1, line 2: after "optical waveguide", insert --wherein the planar optical waveguide has a plurality of waveguide regions--.

Previously withdrawn claims 48-63 and 81-92 are rejoined with the allowed claims and are numbered claims 48-75, respectively.

### **REASONS FOR ALLOWANCE**

2. The following is an examiner's statement of reasons for allowance: the prior art fails to teach a plurality of sample compartments corresponding with a plurality of recesses wherein each sample compartment comprises only a single waveguide region that is part of one planar optical waveguide that is common to all sample compartments and wherein each sample compartment has different biological or biochemical recognition elements immobilized in five or more discrete measurement areas within the sample compartment on the single waveguide region comprised by the sample compartment.

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3. Neuscäfer et al. (WO 96/35940) teach a sensor platform having a single planar optical waveguiding layer; a sealing layer; and a plurality of recesses corresponding to sample compartments, each sample compartment comprising different biological recognition elements in discrete measurement areas, wherein the measurement areas are in optical interaction with an excitation light emanating from the optical waveguide. Neuscäfer et al. differ from the allowable claims by teaching that within the waveguiding layer, the layer is separated into between 2 and 100 separate waveguides. Therefore Neuscäfer et al. fail to teach one planar optical waveguide having a plurality of waveguiding regions wherein each sample compartment comprises only a single waveguide region. Neuscäfer et al. also fail to teach the measurement areas being arranged in an array wherein there are at least two measurement areas in the width direction of the array and at least two measurement areas in a length direction of the array.
4. Coassin et al. teach (US 6,660,233) teach an array on a waveguide having measurement areas arranged with at least two in a length direction and at least two in a width direction. Coassin et al. differ from the allowable claims by failing to teach a plurality of recesses opening towards a sensor platform having one planar optical waveguide, with a plurality of waveguide regions, wherein the recesses form a corresponding plurality of sample compartments and each sample compartment comprising only a single waveguiding region comprising the discrete measurement areas on the same waveguiding region.

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5. Rudigier et al. (US 5,738,825) teach a sensor platform having one planar optical waveguide, wherein the planar optical waveguide has a plurality of waveguide regions; a sealing layer forming a seal with the planar optical waveguide; and a plurality of recesses opening towards a sensor platform which form a corresponding plurality of sample compartments, the plurality of sample compartments arranged in a length direction and at least two sample compartments in a width direction, wherein each of the sample compartments comprise only a single waveguide region and has a of recognition element for specific recognition and binding of analyte and operable to receive and clear sample or reagent solutions. Rudigier et al. differ from the allowable claims by failing to teach each sample compartment having recognition elements for different analyte immobilized in five or more discrete areas within the sample compartment and these measurement areas in optical interaction with excitation light emanating from the optical waveguide as part of the sensor platform which forms demarcation of the sample compartments.

It would not have been obvious to one having ordinary skill in the art to combine Rudigier et al. with Coassin et al. to obtain five or more discrete measurement areas on a single planar optical waveguide in the same sample compartment (waveguide region) because the prior art does not suggest or teach incorporation of more than 1 measurement area in a sample compartment or on a single waveguiding region. The prior art only teaches a single waveguide region for a single measurement area and not a single waveguide region for multiple measurement areas.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELANIE YU whose telephone number is (571)272-2933. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Shibuya can be reached on (571) 272-0806. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Melanie Yu/  
Primary Examiner, Art Unit 1641